

# Work Order ID 52873

October 16, 2009 10:08:05 AM



Page 1

Item ID: D206-642-541  
Revision ID: M  
Item Name: Replacement Skidtube

Accept



Setup Start



Stop



Start Date: 16/10/2009 Start Qty: 1.00



Cust Item ID: 6

Required Date: 02/11/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: PA Date: 09-10-14 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
IIN-D206-642	Rev M

100

0.00



DOCUMENT CONTROL

DC

0.00

Document Control

Memo

Photocopy bluefile & type labels per PPP D206-642-541

CHG003

N/A JD

**Work Order ID 52873**

October 16, 2009 10:08:05 AM



Page 2

Item ID: D206-642-541

Accept



Setup Start



Revision ID: M

Stop



Item Name: Replacement Skidtube

Start Date: 16/10/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 02/11/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

110

0.00



Skidtubes

Skidtubes

0.00

**Memo**

1- Bend FWD end of tube using bend prog D3274 FWD dwg D3274, cut fwd end of tube with saw table setup D3274.

DP 9-10-14

2- remove fwd indexing ridge as per dwg D3274. Prepare for welding ⇒ SAG 09-10-21

3- weld fwd cap as per dwg D3274 and OSI004

AR Aluminum Rod Batch: 2109213 / 1111999

4- grind fwd cap weld on top surface only

BE 09-10-21

BE 09-10-21

5- Cut AFT end of tube at 170.9" as per dwg D3274 and deburr end.

6-Drill Aft cap pilot hole using DT8025

7 -Cleco DT8025 in position and install pilot hole drill Jig DT8742A,B,C,D.  
Drill 3/16" pilot holes as per Dwg D3274

8 -Remove inner indexing ridge on aft end of skidtube as per Dwg D3274 scribe batch #

9 -Open aft end cap holes to Ø0.208" as per Dwg D3274. Deburr aft end.

K 9-10-22

# Work Order ID 52873

October 16, 2009 10:08:05 AM



Page 3

Item ID: D206-642-541

Accept



Setup Start



Revision ID: M

Stop



Item Name: Replacement Skidtube

Start Date: 16/10/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 02/11/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120  HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1  Memo	0.00 0.00	SAD 09-10-22			(1)			
130  QC Quality Control	QC3- Inspect Part Finish  Memo	0.00 0.00	2) 80910126			(2)	6		
140  QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo	0.00 0.00	2) 80910126			(4)	6		

# Work Order ID 52873

October 16, 2009 10:08:06 AM



Page 4

Item ID: D206-642-541

Accept



Setup Start



Revision ID: M

Stop



Item Name: Replacement Skidtube

Start Date: 16/10/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 02/11/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

150

0.00



Skidtubes

Skidtubes

Memo

0.00

1-Open Ø0.313" and 0.375" crossbolt spacer holes using DT8743 as per Dwg D3274

2-Deburr crossbolt spacer holes as per Dwg D3274 and blow out chips from inside the tube

3-Bond web in place as per Dwg D3274 & QSI 015.

A/R ☐ Sikaflex-291 ☒ M11239 ☐ ☐

Sikaflex expire date: ☐ 10/2/30 ☐

Start: ☐ 9/10/28 ☐ Time: ☐ 1:35 PM ☐

Finish: ☐ 9/10/30 ☐ Time: ☐ 10:25 AM ☐

(Adhere for 12 hours)

> AWM 9-10-26

160

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

2) 8 o'clock

(8) 4



# Work Order ID 52873

October 16, 2009 10:08:06 AM



Page 5

Item ID: D206-642-541

Accept



Setup Start



Revision ID: M

Stop



Item Name: Replacement Skidtube

Start Date: 16/10/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 02/11/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

170

0.00



Skidtubes

Skidtubes

Memo

0.00

1-Bend AFT end of tube using bend prog. D3274 AFT as per dwg D3274. Install drop pins in crossbolt spacer holes to maintain web position.

2- DRILL PILOT HOLES FOR WEARPLATES USING D3274-IT2  
OPEN HOLES TO .297" . Deburr

3-DRILL TOE PIN HOLE .640" DIA AS PER DWG USING DT895 FWD  
END OF TUBE  
DEBURR INSIDE OF HOLE AS NECESSARY (DO NOT ENLARGE HOLES)  
REMOVE ANY FOREIGN OBJECTS INSIDE OF TUBES

4- Countersink crossbolt spacer holes as per Dwg D3274

5- prepare for welding

9-11-2

11 9/11/12



180

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

2) Skidtube



L' 2 45°  
L' 2 3.90"

# Work Order ID 52873

October 16, 2009 10:08:06 AM



Page 6

Item ID: D206-642-541

Accept



Setup Start



Revision ID: M

Stop



Item Name: Replacement Skidtube

Start Date: 16/10/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 02/11/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

190

0.00



Skidtubes

Skidtubes

Memo

0.00

1-Insert D2649 & D3275-1 crossbolt spacers. Weld as per QSI 004 and Dwg D3274. Remember to back drill each hole before welding the other side. Use aluminum rod  
A/R ☐ Aluminum Rod M112507 BE 09/11/03

3-Grind cross bolt welds flush as per Dwg D3274.

4-Counterbore 5/16" x 0.750" deep as per Dwg D3274. Use DT8743 visual aid Jig and deburr.

200

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

⇒ 8 or 10/05

14

14 9/11/14

# Work Order ID 52873

October 16, 2009 10:08:06 AM



Page 7

Item ID: D206-642-541

Accept



Setup Start



Revision ID: M

Stop



Item Name: Replacement Skidtube

Start Date: 16/10/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 02/11/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

210

QC10- Inspect visual per QSI004- ground welds

0.00



⇒ Scullos



4

QC

Memo

0.00

Quality Control

220

Pressure Wash per QSI005 4.3

0.00



09/11/06



8

HandFinish

Memo

0.00

Hand Finishing

230

White Gloss(Ref.4.3.5.1) per QSI005 4.3-Alum

0.00



11/12/48

0.00

09/11/06



8

Powdercoat

Memo

Powder Coating

START TIME: 9:00 AM  
OVEN TEMPERATURE: 320°F  
FINISH TIME: 9:30 AM



**Work Order ID 52873**

October 16, 2009 10:08:06 AM



Page 8

Item ID: D206-642-541

Accept



Setup Start



Revision ID: M

Stop



Item Name: Replacement Skidtube

Start Date: 16/10/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 02/11/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
240  QC Quality Control	QC3- Inspect Part Finish  Memo	0.00  0.00							
			MP 09/11/10			XA			
250  HandFinish Hand Finishing	HandFinishing  Memo 1-Install Nut Plate as per Dwg D3274. Apply LPS-3 to Nut Plate and rivets. A/R <input type="checkbox"/> N/A <input type="checkbox"/> LPS-3 <input type="checkbox"/> 2-Install inserts as per Dwg D3274. Use a drop of Sikaflex inside insert holes a A/R <input type="checkbox"/> <input type="checkbox"/> Sikaflex-291 <input type="checkbox"/> m12341 Sikaflex expire date: <input type="checkbox"/> 10/20	0.00  0.00							
			MP 09/11/10			XI			
260  QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo Inspect Nut Plate & Inserts	0.00  0.00							
						I			59-11-11

# Work Order ID 52873

October 16, 2009 10:08:06 AM



Page 9

Item ID: D206-642-541

Accept



Setup Start



Revision ID: M

Stop



Item Name: Replacement Skidtube

Start Date: 16/10/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 02/11/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

270

0.00



HAND FINISHING RESOURCE #1

HandFinish

Memo

0.00

Hand Finishing

1-Install wearpads & gaskets as per Dwg D3274.

2-Install ring as per Dwg D3274

A/R ☐ Sikaflex-291 ☒ m112391

Sikaflex expire date: ☐ 10/20

3-Inspect for foreign objects as per QSI 024

4-Spray inside of tube on both sides of web with LPS-3

A/R LPS-3 Batch: \_\_\_\_\_

5-Install Aft Cap and seal with Sikaflex. Clean excess adhesive.

A/R ☐ Sikaflex-291 ☒ m112391

Sikaflex expire date: ☐ 10/20

LPS Procyon Batch m104251

MP 09/11/11

280

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

1 2911/12

# Work Order ID 52873

October 16, 2009 10:08:06 AM



Page 10

Item ID: D206-642-541

Accept



Setup Start



Revision ID: M

Stop



Item Name: Replacement Skidtube

Start Date: 16/10/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 02/11/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start

# Picklist Print

October 16, 2009 10:08:11 AM

Page 1

Work Order ID: 52873

Parent Item: D206-642-541RevM

Parent Item Name: Replacement Skidtube

Comments:

Start Date: 16/10/2009

Required Date: 02/11/2009

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2600-1-190RevD1		Manufactured	No			110	Each	65.0000	1.0000			
Extrusion Round 3" 206												

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

65

47575

65

D3285-1RevA

Manufactured

No



Cap

110

Each

27.0000

1.0000

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

27

47635

27

D3282-041RevC

Manufactured

No



Float Web (206L/407)

150

Each

5.0000

1.0000

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

LG

5

48389

5

13 52696

1 9/10/29

9-10-19

1

1 BE 09/10/21

12

# Picklist Print

Page 2

October 16, 2009 10:08:11 AM

Work Order ID: 52873

Parent Item: D206-642-541RevM

Parent Item Name: Replacement Skidtube


Start Date: 16/10/2009

Required Date: 02/11/2009

Start Qty: 1.00

Required Qty: 1.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2649RevB1		Manufactured	No			190	Each	593.0000	13.0000			
												
Cross Bolt Spacer												

Warehouse Loc Qty Loc Code

Location

Main Warehouse

LG 83

51529 83

Main Warehouse

ST 510

36013 5

47112 383

48271 122

D3275-1RevA1 Manufactured No



Crossbolt Spacer

190 Each 28.0000 12.0000



Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST 28

47464 1

48117 15

48270 12

852510

12

BC 09/11/03

October 16, 2009 10:08:11 AM

Shop Packet Print

Page 2

# Picklist Print

October 16, 2009 10:08:11 AM

Work Order ID: 52873

Parent Item: D206-642-541RevM

Parent Item Name: Replacement Skidtube

Start Date: 16/10/2009

Required Date: 02/11/2009

Start Qty: 1.00

Required Qty: 1.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

CR3212-4-03		Purchased	No			250	Each	310.0000	2.0000			
-------------	--	-----------	----	--	--	-----	------	----------	--------	--	--	--



Cherry Rivet

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

111359

112314

15984

310

96

200

14

250

Each

93.0000

1.0000

D3415-041RevB

Manufactured

No



Nut Plate

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

33842

93

93

250

Each

267.0000

2.0000

CCR264SS3-3

Purchased

No



Cherry Rivet

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

111548

111827

112314

267

52

115

100

October 16, 2009 10:08:11 AM

Shop Packet Print

# Picklist Print

Page 4

October 16, 2009 10:08:11 AM

Work Order ID: 52873



Parent Item: D206-642-541RevM



Parent Item Name: Replacement Skidtube

Start Date: 16/10/2009

Required Date: 02/11/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
ALS4-1032-130		Purchased	No			250	Each	5,373.000	78.0000			

Insert

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

5373

110511

5373

D3536-15RevA

Manufactured

No

270

Each

41.0000

1.0000



Gasket

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

41

47711

3

48159

12

51600

26

X 78 MD 09/11/10

X 1 MD 09/11/11

# Picklist Print

October 16, 2009 10:08:11 AM

Work Order ID: 52873



Parent Item: D206-642-541RevM



Parent Item Name: Replacement Skidtube

Start Date: 16/10/2009

Required Date: 02/11/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3536-23RevA		Manufactured	No			270	Each	30.0000	1.0000			

Gasket

Warehouse Loc Qty Loc Code

Location

Main Warehouse

FP

12

51609

12

Main Warehouse

ST

18

30754

1

47713

17

270

Each

39.0000

1.0000

X1 ~~09/11/11~~

D3536-35RevA

Manufactured

No



Gasket

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

39

48160

13

51628

26

X1 ~~09/11/11~~



# Picklist Print

Page 6

October 16, 2009 10:08:11 AM

Work Order ID: 52873

Parent Item: D206-642-541RevM

Parent Item Name: Replacement Skidtube

Comments:

Start Date: 16/10/2009

Required Date: 02/11/2009

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3536-39RevA		Manufactured	No			270	Each	28.0000	1.0000			

Gasket

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
FP	12	
51637	12	
Main Warehouse		
ST	16	
44648	1	
47714	4	
48161	11	

D3535-15RevB

Manufactured No

270 Each 31.0000 1.0000



Wearshoe

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
FP	18	
51671	18	
Main Warehouse		
ST	13	
30750	4	
42233	1	
48155	8	

October 16, 2009 10:08:11 AM

Shop Packet Print

Page 6

# Picklist Print

Page 7

October 16, 2009 10:08:11 AM

Work Order ID: 52873

Parent Item: D206-642-541RevM

Parent Item Name: Replacement Skidtube

Comments:

Start Date: 16/10/2009

Required Date: 02/11/2009

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3535-35RevB		Manufactured	No			270	Each	36.0000	1.0000			

Wearshoe

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	36	
48157	10	
51608	26	

X1 MD 09/11/11

D3535-39RevB

Manufactured No

270 Each 26.0000 1.0000



Wearshoe

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
FP	13	
51619	13	
Main Warehouse		
ST	13	
48158	13	

X1 MD 09/11/11

October 16, 2009 10:08:11 AM

Shop Packet Print

Page 7

# Picklist Print

Page 8

October 16, 2009 10:08:11 AM

Work Order ID: 52873

Parent Item: D206-642-541RevM

Parent Item Name: Replacement Skidtube

Start Date: 16/10/2009

Required Date: 02/11/2009

Start Qty: 1.00

Required Qty: 1.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3535-23RevB		Manufactured	No			270	Each	24.0000	1.0000			

Wearshoe

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
FP	13	
51618	13	
Main Warehouse		
ST	11	
48156	11	

21 mo 09/11/11

D3537-3RevC

Manufactured No



Wearpad

270 Each 69.0000 1.0000



<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	69	
30758	7	
33881	17	
35697	45	

21 mo 09/11/11

October 16, 2009 10:08:11 AM

Shop Packet Print

Page 8

# Picklist Print

Page 9

October 16, 2009 10:08:11 AM

Work Order ID: 52873



Parent Item: D206-642-541RevM



Parent Item Name: Replacement Skidtube

Start Date: 16/10/2009

Required Date: 02/11/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3537-1RevC		Manufactured	No			270	Each	284.0000	9.0000			

Wearpad

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
FP	2	
48288	2	
Main Warehouse		
FP17	265	
51624	103	
51678	162	
Main Warehouse		
ST	17	
51918	17	

X4  
X5 MTD 09/11/11

AN960C10L

Purchased

No

270

Each

4,396.000 80.0000



washer

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
OFFSHORE		
FG	100	
103585	100	
Main Warehouse		
ST	4296	
112116	993	
12612	3303	

X80 MTD 09/11/11

October 16, 2009 10:08:11 AM

Shop Packet Print

Page 9

# Picklist Print

Page 10

October 16, 2009 10:08:11 AM

Work Order ID: 52873

Parent Item: D206-642-541RevM

Parent Item Name: Replacement Skidtube


Comments:

Start Date: 16/10/2009

Required Date: 02/11/2009

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN960C416  washer		Purchased	No			270	Each	704.0000	1.0000			

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

704

100993

704

270

Each

2,056.000 2.0000

X1 mo 09/11/11

D3672-1RevB



Phenolic Washer

Manufactured

No

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

1556

39275

19

42329

15

47628

522

52505

1000

Main Warehouse

ST117

500

51674

500

X2 mo 09/11/11

# Picklist Print

Page 11

October 16, 2009 10:08:12 AM

Work Order ID: 52873

Parent Item: D206-642-541RevM

Parent Item Name: Replacement Skidtube

Comments:

Start Date: 16/10/2009

Required Date: 02/11/2009

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN3C4A		Purchased	No			270	Each	1,826.000	80.0000			

BOLT

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	1826	
112314	40	
112720	124	
112724	178	
112794	984	
112829	500	

180 MD 09/11/11

AN4C5A

Purchased

No

270

Each

601.0000 1.0000



BOLT

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	601	
104936	19	
10552	80	
112243	500	
18918	2	

21 MD 09/11/11

October 16, 2009 10:08:12 AM

Shop Packet Print

Page 11

# Picklist Print

Page 12

October 16, 2009 10:08:12 AM

Work Order ID: 52873



Parent Item: D206-642-541RevM



Parent Item Name: Replacement Skidtube

Start Date: 16/10/2009

Required Date: 02/11/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2646RevC		Manufactured	No			270	Each	53.0000	1.0000			
Aft Cap												

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST 53

20208 0

43801 1

46327 4

48109 48

270 Each 40.0000 1.0000

XT mo 09/11/11

D3413-1RevA

Manufactured No



Ring

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST 20

48123 20

Main Warehouse

ST473 20

51586 20

XT mo 09/11/11

October 16, 2009 10:08:12 AM

Shop Packet Print

Page 12

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER

**DART**

52873  
1204-10-21

RELEASED

07.02.12

DEO ATTACHED

DESIGN CP	DRAWN BY PH	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED #	APPROVED #	DRAWING NO. D3274	REV. D SHEET 1 OF 4
DATE 06.12.19	TITLE SKIDTUBE ASSEMBLY		SCALE NTS
A	04.03.15	NEW ISSUE	
B	04.08.09	MOVE SADDLE HOLE: 42.14 WAS 42.76	
C	05.03.16	ADD -043; NEW INSERTS	
D	06.12.19	NEW INSERTS, SS WEARSHOE + GASKET	

Qty -041	Qty -043	Part Number	Description
X		D3274-041	SKIDTUBE ASSEMBLY
	X	D3274-043	SKIDTUBE ASSEMBLY
1	1	D2600-1-240	EXTRUSION
1	1	D2646	AFT CAP
12	12	D2649	CROSS BOLT SPACER
12	37	D3275-1	CROSS BOLT SPACER
1	1	D3282-041	FLOAT WEB
1	1	D3285-1	CAP
1	1	D3413-1	RING
1	1	D3415-041	NUT PLATE
1	1	D3535-15	WEARSHOE
1	1	D3535-23	WEARSHOE
1	1	D3535-35	WEARSHOE
1	1	D3535-39	WEARSHOE
1	1	D3536-15	GASKET
1	1	D3536-23	GASKET
1	1	D3536-35	GASKET
1	1	D3536-39	GASKET
9	9	D3537-1	WEARPAD
1	1	D3537-3	WEARPAD
78	78	ALS7-1032-130	INSERT (or AKS4-1032-130, ALS4-1032-130, AELS-1032-130)
80	80	AN3C4A	BOLT
1	1	AN4C5A	BOLT
1	1	AN960C416	WASHER
80	80	AN960C10L	WASHER
2	2	CCR264SS3-3	RIVET
2	2	CR3212-4-03	RIVET
2	2	NAS1515H3L	WASHER

**GENERAL NOTES:**

1. TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
2. DAMAGE TOLERANCE ON FWD BEND:  
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 7 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
3. ALL HOLES DRILLED ON CENTERLINES.
4. BOND D3282-041 FLOAT WEB INTO D3274-1/-3 OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/291 ADHESIVE PER DART QSI 015. ENSURE HOLES LINE-UP.
5. WELDING TO BE DONE PER DART QSI 004.
6. FINISH: - ACID ETCH, ALODINE ASSEMBLY PER DART QSI 005 4.1  
- POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
7. DRILL Ø0.297 HOLES FOR ALS7-1032-130 INSERTS USING DT3274-1T2 BEFORE FINISH. INSTALL ALS7-1032-130 INSERTS AFTER FINISH. SEAL WEARSHOE BOLTS WITH SIKAFLEX -241/-291.
8. SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.

Copyright © 2004 by DART AEROSPACE USA, INC.




THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.



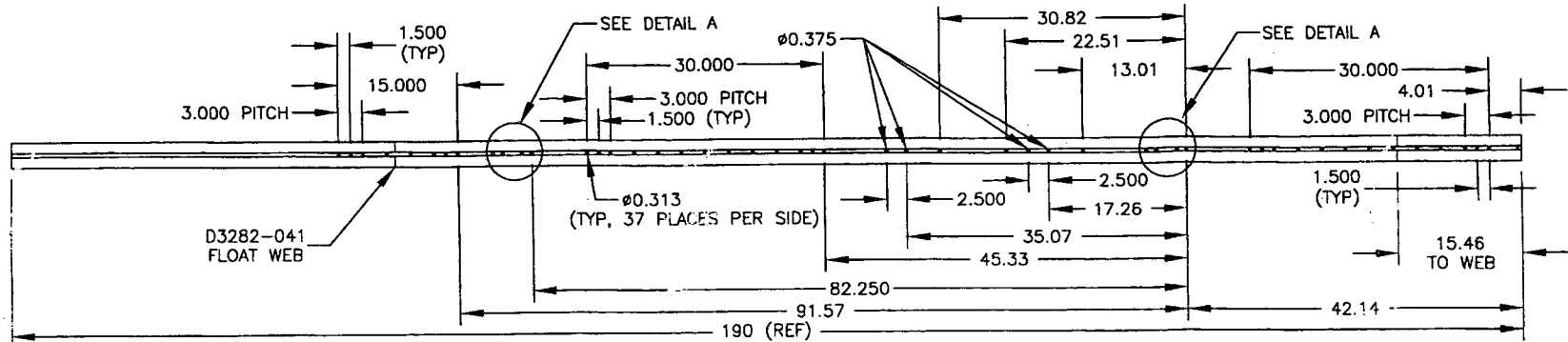
SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 52873



07.02.12

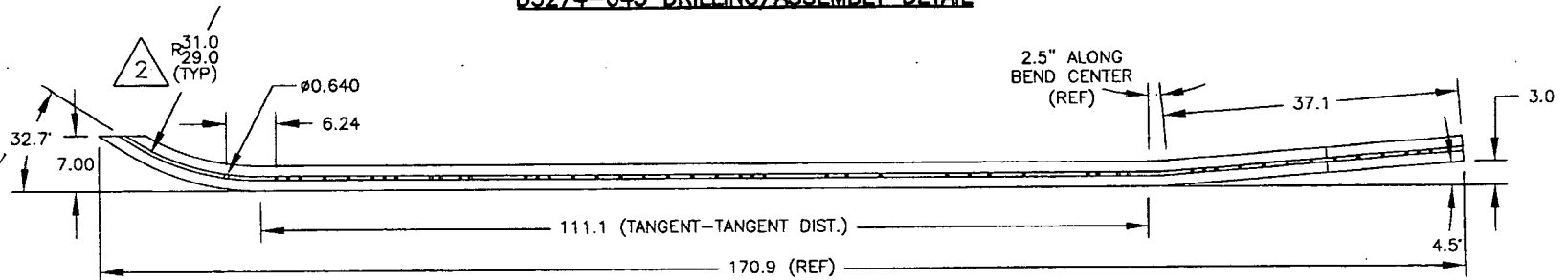
COPYRIGHT © 2004 BY DART AEROSPACE USA, INC.  THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	DESIGN CP	DRAWN BY PH	 DART AEROSPACE USA, INC. PORT MADOCK, WA	REV. D
	CHECKED 	APPROVED 	DRAWING NO. D3274	SHEET 2 OF 4
	DATE 06.12.19	TITLE SKIDTUBE ASSEMBLY		SCALE 1:15

DEO ATTACHED

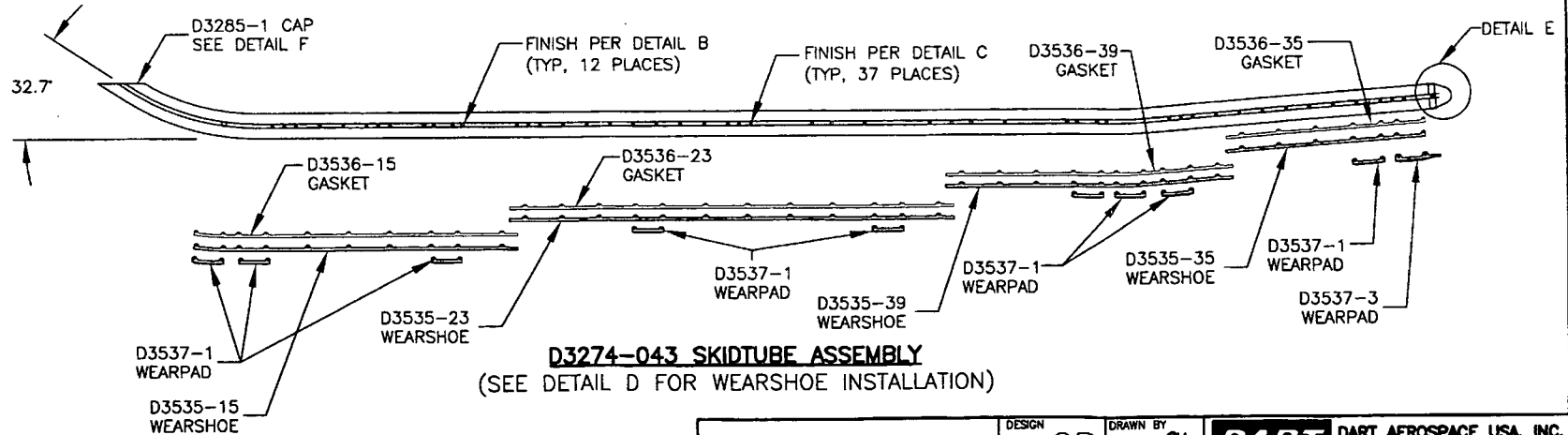


**D3274-043 DRILLING/ASSEMBLY DETAIL**

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 52873



**D3274-043 BEND/DRILLING DETAIL**



**D3274-043 SKIDTUBE ASSEMBLY**  
(SEE DETAIL D FOR WEARSHOE INSTALLATION)

RELEASED

07-02-12

COPYRIGHT © 2004 BY DART AEROSPACE USA, INC.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL  
AND IS SUPPLIED ON THE EXPRESS CONDITION  
THAT IT IS NOT TO BE USED FOR ANY PURPOSE  
OR COPIED OR COMMUNICATED TO ANY OTHER  
PERSON WITHOUT WRITTEN PERMISSION FROM  
DART AEROSPACE USA, INC.

DESIGN

CP

DRAWN BY

PH

CHECKED

APPROVED

PH

DATE

06.12.19

**DART** DART AEROSPACE USA, INC.  
PORT HADLOCK, WA

DRAWING NO.

D3274

TITLE

SKIDTUBE ASSEMBLY

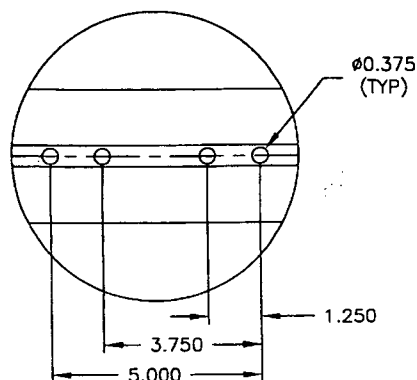
REV. D

SHEET 3 OF 4

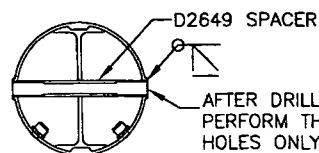
SCALE

1:15

# **DETAIL A: DRILL DETAIL**



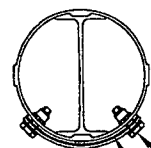
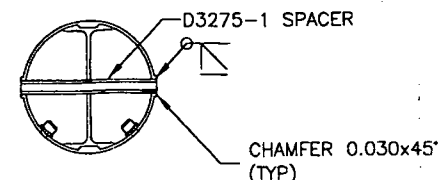
## **DETAIL B** FOR 0.375 HOLES ONLY



SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 5283

- AFTER DRILLING AND BENDING ASSEMBLY  
PERFORM THE FOLLOWING FOR 0.375  
HOLES ONLY:
1. CHAMFER HOLE 0.030x45°
  2. INSERT D2649 SPACER
  3. WELD INTO PLACE AND GRIND FLUSH
  4. C'BORE TO 0.313x0.75 DEEP

## **DETAIL C** FOR 0.313 HOLES ONLY



## **DETAIL D**

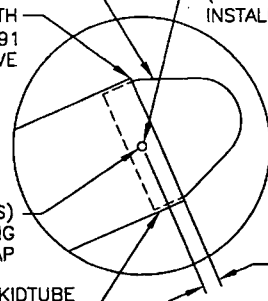
- ALS7-1032-130 INSERT (1)  
AN3C4A BOLT (1)  
AN960C10L WASHER (1)  
(78 PLACES)

GASKET/WEARSHOE/WEARPAD (REF)

## **DETAIL E**

- AN3C4A BOLT (1)  
AN960C10L WASHER (1)  
NAS1515H3L WASHER (1)  
(2 PLACES)  
INSTALL WITH SIKAFLEX-241/-291

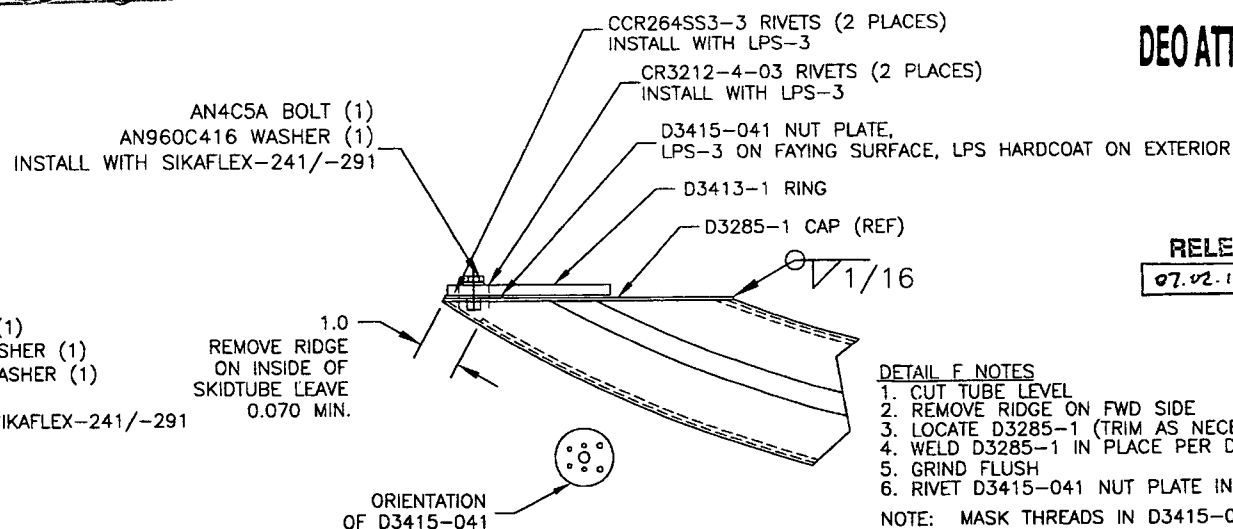
D2646 CAP  
SEAL WITH  
SIKAFLEX-241/291  
ADHESIVE



0.208 (2 PLACES)  
DRILL PRIOR TO INSTALLING  
D2646 CAP

BORE OUT END OF SKIDTUBE  
TO 0.75 DEPTH AND 0.070 WALL

## **DETAIL F: END FINISHING DETAIL**



DEO ATTACHED

RELEASED

07.02.12

## **DETAIL F NOTES**

1. CUT TUBE LEVEL
  2. REMOVE RIDGE ON FWD SIDE
  3. LOCATE D3285-1 (TRIM AS NECESSARY)
  4. WELD D3285-1 IN PLACE PER DART QSI 004
  5. GRIND FLUSH
  6. RIVET D3415-041 NUT PLATE IN PLACE
- NOTE: MASK THREADS IN D3415-041  
PRIOR TO FINISH

COPYRIGHT © 2004 BY DART AEROSPACE USA, INC.		DESIGN	CP	DRAWN BY	PH	<b>DART</b> DART AEROSPACE USA, INC. PORT HADLOCK, WA	
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.		CHECKED	#	APPROVED	#	DRAWING NO. D3274	REV. D SHEET 4 OF 4
		DATE	06.12.19	TITLE		SKIDTUBE ASSEMBLY	SCALE 1:3

DRAWING NO. D3274	TITLE SKIDTUBE ASSEMBLY	REV. D	DART AEROSPACE USA, INC ENGINEERING ORDER		D.E.O. NO. D3274-D-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>CP</i>	CHECKED <i>[Signature]</i>	MFG. APPR. <i>M</i>	APPROVED <i>[Signature]</i>		DE APPR. <i>[Signature]</i>		
DATE 09.06.17	DATE 09.06.23	DATE 09/06/23	DATE 09/06/23		DATE 09.06.23		

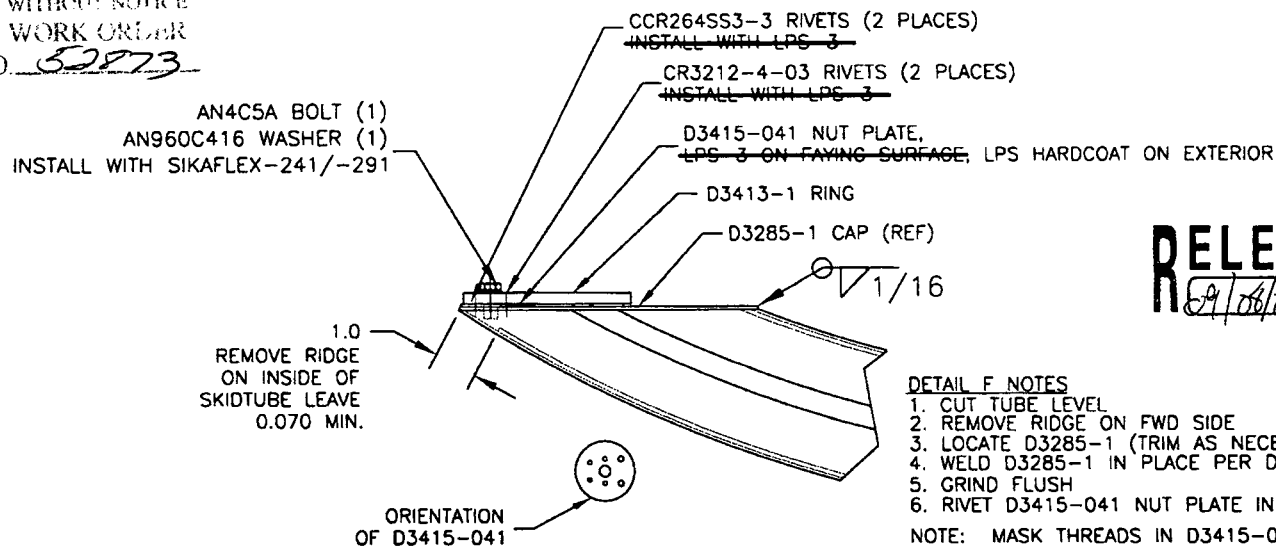
LPS-3 IS NO LONGER USED DURING ASSEMBLY OF SKIDTUBE.

AMEND NOTE 8: "~~SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES 'LPS-3' AFTER FINISH AND INSTALLATION OF INSERTS.~~  
COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES 'LPS PROCYON' AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF  
POWDER COATING WITH MEK DEGREASER."

AMEND DETAIL F AS SHOWN:

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 52873

### DETAIL F: END FINISHING DETAIL



#### DETAIL F NOTES

1. CUT TUBE LEVEL
2. REMOVE RIDGE ON FWD SIDE
3. LOCATE D3285-1 (TRIM AS NECESSARY)
4. WELD D3285-1 IN PLACE PER DART QSI 004
5. GRIND FLUSH
6. RIVET D3415-041 NUT PLATE IN PLACE

NOTE: MASK THREADS IN D3415-041  
PRIOR TO FINISH

COPYRIGHT © 2009 BY DART AEROSPACE USA, INC

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.

NO. 214

AWS D17.1.2001  
QUALIFICATION TEST RECORD

Name: Barclay Elliott  
Job number: 52855  
Part number: D206-K42-251  
Description: 206 skid tube  
Welding Process: Tig[☒] Mig[ ]  
Base material: Aluminium  
Current: AC[☒] DC[ ]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[ ]  
Penetration: pass[☒] fail[ ]

UNACCEPTABLE

Cracks: pass[☒] fail[ ]  
Undercut: pass[☒] fail[ ]  
Pin holes: pass[☒] fail[ ]  
Overlap (cold lap): pass[☒] fail[ ]  
Porosity (surface): pass[☒] fail[ ]  
Coloration: pass[☒] fail[ ]

Qualifier Pat Dunc Date of Test Coupon 09.10.29  
Welder Barclay Elliott Date of Test Coupon 09.10.29

The above named individual is qualified in accordance with AWS D17.1.2001 to weld